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ABSTRACT

This report describes one of a series of pilot studies conducted to evaluate the instructional effectiveness of the "Harcourt Reading" program. This particular study focused on 7 kindergarten classes that started the study in the fall of 1999 and continued throughout the entire academic year. Students were taught selected themes using the resources and procedures contained in the "Harcourt Reading" program. Teachers received training from experienced consultants in methods of implementing the program. Instruction included a broad sample of reading skills from the strands of decoding, vocabulary, and comprehension. Students were administered the Harcourt program's "Reading Inventory" as a pretest and posttest. Results indicated: (1) average scores increased consistently and increases were statistically significant from the beginning of the year to the end of the year; (2) increases rose at a sharper rate in the second half of the year, suggesting that the longer the students remained in the program the more their scores increased at a higher rate, and also suggesting that teacher familiarity may have played a part; and (3) students would have almost certainly shown a greater increase; however, a ceiling effect with many students achieving near perfect scores on the posttest may have prevented an even more significant score increase. (Contains 2 tables and a figure of data.) (SR)

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A Study of the Instructional Effectiveness of the Harcourt Reading Program at the Kindergarten Grade Level

This report describes one of a series of pilot studies that was conducted to evaluate the instructional effectiveness of the *Harcourt Reading* program. This study reports the results for kindergarten grade children only.

Background Information

Harcourt School Publishers asked the *Educational Research Institute of America* (ERIA) to conduct a series of independent pilot studies to evaluate the effectiveness of the *Harcourt Reading* program. Harcourt School Publishers sought out volunteer teachers to participate in the study; the Department of Test Services assisted in designing, securing, and scoring the data collection instruments; and ERIA conducted the study and analyzed the data that were collected. The study described in this report was conducted during the 1999–2000 school year.

Research Questions

The following research questions guided the design, procedures, and data analysis of the pilot study:

> *Is the Harcourt Reading program instructionally effective? Do selected themes significantly increase students' understanding of key reading skills, concepts, and strategies as measured by the program's Reading Inventory? As measured by the program's Reading Skills Tests?*

Design and Procedures of the Study

This particular study was focused on kindergarten students and was a continuation of a study started in the fall of 1999. In that study, a total of 40 teachers in Grades K, 1, 2, and 3 participated. The results of that study can be found in ERIA Report No. 101. This study includes only the kindergarten classes that started the study in the fall of 1999 and continued throughout the entire academic year.

All of the kindergarten teachers volunteered to participate in the study. None of them had used the program previously. The teachers were encouraged to select two themes to pilot over a nine- to twelve-week period during the fall semester of the 1999–2000 academic year. In the spring semester they were asked if they would like to continue with the program; 7 of 12 of the classes continued until the second semester. One teacher left the study due to a pregnancy leave. Others decided not to continue because of commitments to other programs in their school district. All of the teachers agreed to administer data-collection instruments before beginning instruction and again after completing instruction.

The study reports on a total of 7 classrooms of students who continued in the *Harcourt Reading* program for an entire academic year. There were a total of 180 students in the original kindergarten sample. However, all pretest and posttest scores are available for only 131 of the 180 students. Some students were absent from either the pretest or the posttest. Other students transferred to other schools.

A quasi-experimental pretest-posttest design was used. Before instruction began, students were administered the Reading Inventory. The same inventory was administered as both a mid-year and an end-of-year posttest. The kindergarten teachers administered all tests.

Following the pretests, the teachers taught the selected themes using the resources and procedures contained in the *Harcourt Reading* program. Teachers also received training from experienced consultants in methods of implementing and using the program. The *Harcourt Reading* program was used by all of the teachers. Instruction included a broad sample of reading skills from the strands of decoding, vocabulary, and comprehension.

Upon completion of the selected themes, students were administered the posttests. All data-collection instruments were returned to the *Educational Research Institute of America*, where they were processed. The Harcourt Kindergarten Reading Inventories and all of the data were analyzed by ERIA.

Findings

Descriptions of each of the assessments used in the study and the assessment results are reported below.

Content of the Kindergarten Reading Inventory	
Subtest	**Number of Items**
Phonemic Awareness	
Detecting Rhyming Sounds	5
Detecting Beginning Sounds	5
Detecting Ending Sounds	5
Graphophonemic Knowledge	
Letter Recognition	5
Letter-Sound Relationships: Beginning Sounds	5
Letter-Sound Relationships: Ending Sounds	5
Word Recognition	5
Writing (Spelling)	
Writing Letters	5
Writing Words	5
Reading Comprehension	
TOTAL	**45**

Kindergarten Test Results

Table 1 summarizes the pretest and posttest means and standard deviations for the Kindergarten Reading Inventory.

TABLE 1
Kindergarten Descriptive Results

Kindergarten	Reading Inventory (45 test items)			
	Lowest Score	**Highest Score**	**Mean Score**	**Standard Deviation**
Pretest (beginning of year)	3	44	25.77	9.09
Mid-year test	7	43	29.42	9.82
Posttest (end of year)	19	45	39.18	6.26

The mean scores from the beginning of the year on the Reading Inventory pretest to the midyear assessment improved from 58% correct to 66% correct after instruction. The mean scores at the end of the year were 88% correct.

The increase from the beginning of the year to mid-year was statistically significant ($t=5.161$, $p<.0001$). The increase from the beginning of the year to the end of the year was also significant ($t=14.25$, $p<.0001$).

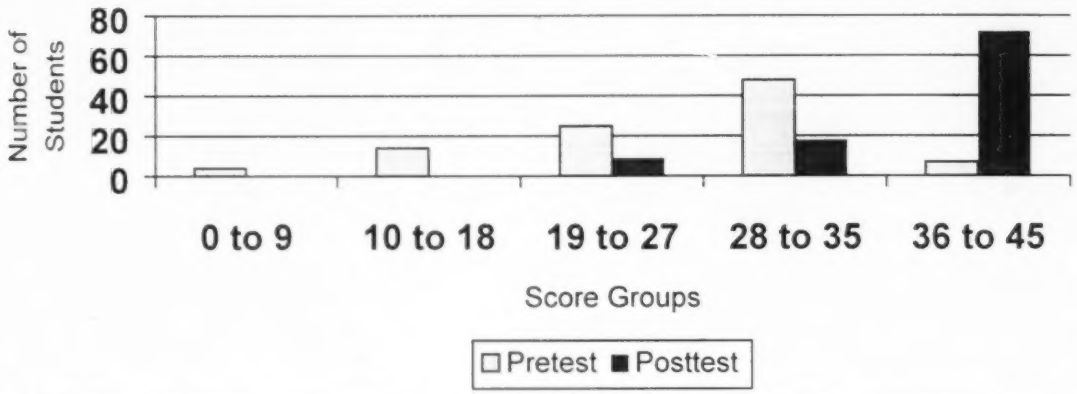
The percent of gains on each of the tests is shown in Table 2.

TABLE 2
Summary of Test Score Increases

	Percent Correct and Raw Scores			**Percent Gain and Raw Score Gain**		
	Correct on Beginning-of-Year Pretest	**Correct on Mid-year Test**	**Correct on End-of-Year Posttest**	**Gain for First Half-Year of study**	**Gain for Second Half-Year of Study**	**Gain for Full Year of Study**
Kindergarten Reading Inventory (Total possible = 45 points)	58%	66%	88%	+8%	+22%	+30%
Mean Raw Scores	25.77	29.42	39.18	+3.65	+8.42	+13.41

Figure 1 provides a clear picture of the dramatic change in the range of scores from the pretest to the posttest. The gray bar shows an almost normal distribution of scores on the pretest with a few scores at the 0 to 9 (lowest) range and a few scores at the 36 to 45 (highest) range. However, after instruction the distribution is now skewed to the right with no scores in the lowest two ranges (0 to 9) and (10 to 18) and about 70% of the scores in the highest range (36 to 45).

Figure 1
Pretest Frequencies Compared to Posttest Frequencies



Summary of Results

- The average scores increased consistently and the increases were statistically significantly from the beginning of the year to the end of year for these kindergarten children.
- Increases rose at a sharper rate in the second half of the year than in the first half of the year, suggesting that the longer the students remained in the program the more their scores increased at a higher rate. Teacher familiarity with the program may have also played a part in the more dramatic increases in the second half of the year.
- Gains of this magnitude for only one year of instruction are quite remarkable considering that the teachers volunteered to teach the units and did not receive any extra training.
- The kindergarten students would have almost certainly shown a greater increase. However, a ceiling effect with many students receiving near perfect scores on the posttest may have prevented an even more significant score increase.
- The significant increase for these kindergarten children emphasizes the importance of a solid foundation at this level. These children can, and did, increase their beginning reading skills significantly and consistently.